

ENERGY STAR® Product Development Update Fall 2006

Provided below are updates on existing and potential ENERGY STAR qualified product categories currently being researched by the Environmental Protection Agency (EPA) and the Department of Energy (DOE). For more information on the status of EPA and DOE's research, visit the ENERGY STAR Specifications in Development Web site at www.energystar.gov/productdevelopment. Click on "Revisions to Existing Specifications" or "New Product Specifications in Development" on the right navigation bar for a list of product-specific Web pages. Contacts are also provided at the end of each update for those parties interested in finding out more about a particular product.

Ceiling Fans

The Version 2.1 Residential Ceiling Fan specification took effect on September 1, 2006. The requirements provided in this new appendix were derived from the existing ENERGY STAR Version 4.0 Residential Light Fixture specification to assist ceiling fan manufacturers in identifying the testing, reporting, and documentation requirements that apply specifically to ceiling fan light kits by referencing one document. **As of October 1, 2006 all ceiling fan light kits listed on the ENERGY STAR Web site meet the new requirements.**

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Clothes Washers

On December 20, 2005, DOE released the final clothes washer criteria revision for 2007 that includes a minimum Modified Energy Factor (MEF) of 1.72 and a maximum water factor of 8.0. The criteria change will apply to both residential clothes washers and residential style commercial clothes washers. **The new ENERGY STAR criteria for clothes washers will go into effect on January 1, 2007.** Per the federal energy bill (EPACT 2005), the ENERGY STAR criteria for clothes washers will be revised by January 1, 2008 and will go into effect on January 1, 2010.

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Compact Fluorescent Light Bulbs (CFLs)

DOE plans to release the fourth draft revision of the ENERGY STAR Version 4.0 criteria for CFLs to industry stakeholders in November with comments due by early December 2006. This version addresses Elevated Temperature Testing procedures for ENERGY STAR qualified CFL reflectors, efficacy, and lifetime requirements. DOE plans on finalizing the criteria in December 2006. The criteria effective date will be approximately 9 months (270 days) after the final date as directed within EPACT 2005.

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Computers

EPA released a Draft 3 specification with TBD levels on June 29, 2006 for review and comment. The Draft 3 specification was intended to finalize all approaches and definitions for the specification. After collecting and analyzing industry data in early August, an Update Document with proposed levels was released on August 26, 2006. Concurrently a working group led by the Information Technology Industry Council (ITIC), an organization representing much of the computer industry, worked closely with EPA to finalize a unique approach to workstation computers. EPA then released the Final Draft computer specification on September 22, 2006 which incorporated stakeholder comments on the Draft 3 specification and Levels Update Document. **EPA finalized this specification on October 23, 2006 with Tier 1 to take effect on July 20, 2007, pending adoption by the European Union. Adoption is anticipated in late November 2006,** in conjunction with the renewal of the Agreement between the Government of the United States of America and the European Community on the Coordination of Energy-Efficiency Labeling Programmes for Office Equipment. Work is continuing on the Tier 2 specification which will include an energy efficiency benchmark for computers and is planned to take effect on January 1, 2009.

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Digital-to-Analog Converter Boxes

EPA distributed a digital-to-analog converter box (DTA) specification framework document to stakeholders on October 2, 2006, which laid out two methods of achieving efficiency in DTAs; a *modal approach* and a *duty cycle approach*. EPA asked stakeholders to provide feedback on the document no later than October 20, 2006. EPA **hosted a stakeholder workshop on October 25, 2006 in Washington, DC** to discuss feedback received on the framework document, and subsequently developed and distributed a **Draft 1 ENERGY STAR specification for DTAs on November 9, 2006. Comments are due on this Draft 1 specification no later than December 6, 2006.** It is EPA's intent to finalize this specification on January 31, 2007 and have it take effect immediately.

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Dishwashers: Commercial

On October 4, 2006 EPA distributed a letter to manufacturers requesting a review of current American Society for Testing and Materials (ASTM) Standard Test Methods that cover Hot Water Sanitizing Door Type Dish Machines (F1696) and Hot Water Sanitizing Conveyor Type Dish Machines (F1920). Manufacturers were also encouraged to test their machines using the ASTM standard idle energy test methods and submit this data to EPA for consideration while developing the next Draft 2 specification. **Manufacturers will have until January 5, 2007 to submit this data for EPA review. Based on the data received, EPA may consider proposing an idle energy requirement.** Currently, the Draft 1 specification proposes a minimum gallons/rack requirement based on the current National Sanitation Foundation NSF/ANSI 3-2003 Standard for Commercial Warewashing Equipment (NSF 3).

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Dishwashers: Residential

On March 8, 2006, DOE released the final ENERGY STAR dishwasher criteria for 2007. The new criteria **raise the minimum Energy Factor (EF) on standard dishwashers to 0.65 and, for the first time, establish a minimum EF for compact dishwashers of 0.88.** Other issues discussed at the July stakeholder meeting, such as water consumption and standby power are being addressed as part of the Dishwasher Working Group, which had its initial call on May 9, 2006. The new criteria take effect on January 1, 2007.

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Enterprise Servers

ENERGY STAR is following an initiative by industry experts to develop a standard energy efficiency measurement protocol for servers used in data centers. The first draft of the protocol was released to industry stakeholders for review and comment on August 18, 2006. **Once the protocol is finalized EPA will review it and any accompanying data in the months following to determine whether an ENERGY STAR specification might be viable.** EPA is also working to educate industry members about energy efficiency and coordinating efforts to address data center energy consumption with international initiatives in the UK. To view the protocol and learn more about ENERGY STAR activities in the data center visit: www.energystar.gov/datacenters.

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External Power Supplies

In March EPA released an ENERGY STAR Version 1.1 Single Voltage External Ac-Dc and Ac-Ac Power Supplies specification. The revised specification incorporates two key changes: **the removal of the exclusion for the products now covered under the ENERGY STAR Battery Charging Systems specification and a delayed Tier 2 effective date.** The Tier 2 effective date was delayed in order for EPA to collect additional data for analysis through the new Online Product Submittal (OPS) tool. EPA plans to use the new data to create a Tier 2 specification. The proposed effective date for the Tier 2 specification is now January 1, 2008.

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Furnaces

On July 28, 2006 EPA released the Draft 1 Version 2.0 Furnace specification for stakeholder review and comment. The draft document proposed an 83% AFUE requirement for oil furnaces and a furnace fan maximum energy use of 800 kWh/year for both gas- and oil-fired models. Following a subsequent draft version and review of stakeholder comments, **EPA released a Final specification on October 27, 2006.** In addition to the Tier I 83% AFUE requirement, the Final specification includes the following requirements under Tier II: (1) minimum 85% AFUE for oil furnaces and (2) placeholder for furnace fan efficiency. **Tier I went into effect on October 27, 2006 and Tier II is scheduled to take effect on October 1, 2008.** EPA is continuing to work on the development of a fan efficiency metric and associated levels.

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Ice Machines

On November 15, 2006 EPA announced its intentions to develop an ENERGY STAR specification for ice machines. Over the last year, EPA conducted research on the ice machine market, existing technologies and ranges of energy performance, and the savings potential of high efficiency water- and air-cooled models. As of January 1, 2010, all ice machines will be required by the Energy Policy Act of 2005 to meet current Consortium of Energy Efficiency (CEE) Tier I levels. Based on the research conducted to date, EPA will determine whether or not to introduce an ENERGY STAR specification for ice machines that may take effect before the new Federal minimum efficiency standard.

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Imaging Equipment

On May 3, 2006, EPA distributed the Final ENERGY STAR Version 1.0 Imaging Equipment specification, which provides eligibility criteria for products addressed by the Operational Mode (OM) approach and the Typical Electricity Consumption (TEC) approach. **This specification is considered final, pending adoption by the European Union. Adoption is anticipated in late November 2006,** in conjunction with the renewal of the Agreement between the Government of the United States of America and the European Community on the Coordination of Energy-Efficiency Labeling Programmes for Office Equipment. EPA will keep partners informed during this review process by the EU, particularly with regard to anticipated timeframe, as this information becomes available. All current partners and other manufacturing stakeholders will be invited to sign an ENERGY STAR Partnership Agreement upon the adoption of this specification by the EU. Digital duplicator manufacturers will be permitted to begin qualifying products immediately once they sign this Partnership Agreement. The Version 1.0 specification is scheduled to take effect for all other imaging equipment products on April 1, 2007. EPA expects to begin work with stakeholders on Tier 2 for this specification in spring of 2007. The Version 1.0 specification is scheduled to go into effect for all other imaging equipment products on April 1, 2007.

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Programmable Thermostats

EPA is currently working on a plan for programmable thermostat partners that will change over the ENERGY STAR performance specification to a consumer education campaign. EPA is determining how programmable thermostats will be integrated into the existing heating and cooling campaigns and what opportunities will be available to manufacturers to participate.

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Residential Light Fixtures

On April 6, 2006 EPA announced its intent to revise the test procedure for the Residential Light Fixture specification Version 4.0. The intent is to allow new and emerging technologies to be tested to allow for standardized comparison of product types already covered. Specifically, **EPA intends to add language that will allow the labeling of LED fixtures for limited applications such as recessed cans, under cabinet fixtures and outdoor fixtures; and include language for self-ballasted compact fluorescent lamps with GU-24 bases.** Of note, this revision would NOT require the additional testing or re-qualification of ANY existing qualified products. EPA continues to research testing methods and

requirements related to LED technology and intends to release a draft of the proposed revisions for stakeholder in the coming months.

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Roof Products

EPA released a Final Draft of the Version 2.0 Roof Product specification on July 26, 2006 for stakeholder review and comment. The Final Draft retains the proposal for emissivity at 0.75 and introduces the Solar Reflectance Index (SRI) as an alternative method for products with thermal emittance levels below the requirement to qualify as ENERGY STAR. SRI is designed to allow lower emittance roofs to qualify if their reflectance levels are high enough above the minimum specification levels to outweigh the impact of lower emittance. In addition, the proposed effective date for the new specification was moved to May 1, 2007. **Based on feedback received on the Final Draft, EPA is conducting further analysis of the proposed changes. EPA expects to complete this analysis by November 30, 2007.**

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Telephony

EPA finalized the ENERGY STAR Version 2.0 Telephony specification on January 19, 2006. Under this version 2.0 specification, telephony manufacturers will have to: (i) ensure that their products meet the system-level requirements in the Version 2.0 specification; and (ii) use external power supplies that meet or exceed Tier 1 of the ENERGY STAR Single Voltage External Ac-Dc and Ac-Ac Power Supplies specification, if their telephony products are designed for use with external power supplies. The original effective date of the Version 2.0 specification was intended to be July 1, 2006. However, due to unexpected shifts in the marketplace and some confusion regarding the implementation of a Tier 2 ENERGY STAR specification for Single Voltage External Ac-Dc and Ac-Ac Power Supplies, the **effective date of the Version 2.0 telephony specification has been delayed to November 1, 2006**. As of this date, only those telephony models which meet the Version 2.0 requirements will be considered ENERGY STAR qualified and listed on the ENERGY STAR Web site. EPA is currently working with manufacturers to identify which of their currently qualified models will meet the Version 2.0 specification.

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Televisions

EPA is currently working with its international partners and a group within the International Electrotechnical Commission (IEC) to develop a new test procedure to measure the amount of energy consumed by a television when it is 'active' or in 'on' mode. A **Draft test procedure will be shared with ENERGY STAR stakeholders in the December/January timeframe** in anticipation of testing on the latest, most feature-rich television models during January/February. This testing will be used to inform specification levels for the Draft 1 ENERGY STAR specification for televisions, scheduled to be released for stakeholder review and comment in spring 2007. EPA anticipates finalizing the specification in mid 2007, and having it take effect in early to mid 2008.

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Vending Machines

On August 31, 2006 EPA released the Final Version 2.0 Refrigerated Beverage Vending Machine specification. Existing machines that are rebuilt with energy-efficient components and energy management features are now eligible for ENERGY STAR qualification. **Rebuilt vending machines must meet the same performance requirements as new machines**, which have been eligible for ENERGY STAR since the launch of the specification in 2004. All comments and materials developed during the specification development process are available on the specification development Web site. Companies interested in becoming an ENERGY STAR partner and qualifying existing machines as ENERGY STAR should contact vendingmachines@icfi.com.

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Ventilating Fans

On August 29, 2006, EPA distributed a proposed clarification to the ENERGY STAR Version 2.0 ventilating fan specification to expand the testing options available to manufacturers when determining the ENERGY STAR qualification of their products. Two new test procedures were suggested for inclusion in a clarified Version 2.1 specification. Stakeholders were given until September 15, 2006 to share comments on these proposed changes. **After carefully considering the feedback received, EPA has decided to delay this clarification to allow adequate time to consider all stakeholder concerns regarding these changes.** EPA will work closely with stakeholders in the months ahead to ensure the best possible resolution to these concerns and will issue additional correspondence to stakeholders with updates on this process. To view materials related to the proposed clarification, please visit the Ventilating Fan Web page.

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